Isaac Chen EPA Region 6

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Cooling Water Intake Structure Entrainment Monitoring Study Activity Report – Second Quarter 2012

This document is the sixth quarterly activity report for the Industry-Wide Entrainment Monitoring Study being conducted to meet the requirements of NPDES Permit GMG290000.

Study plans call for two sampling events per month at each of four Gulf of Mexico platforms (Figure 1). For each platform visit, plans call for three tows of a sampling net, representing morning, mid-day, and dusk sampling times. For each tow, samples are collected over three depth intervals.

Sampling activities for this study started on January 23, 2011. Tables 1 and 2 summarize the sampling activity during 2011 and the first two quarters of 2012. Out of a total of thirty-eight cruises scheduled since the beginning of the study, twelve had to be cancelled entirely due to adverse sea conditions. Wave heights of 4-5 feet make sampling difficult and seas in excess of 5 feet make safe sampling impossible. As previously discussed with EPA, safety is the most important consideration in the conduct of this study. Missed samples are being made up as soon as possible on subsequent visits. Overall, we have collected 73% of the samples scheduled to date.

Please contact me by e-mail at <u>joe.p.smith@exxonmobil.com</u> or by phone at 713-431-4532 if you have any questions about this report.

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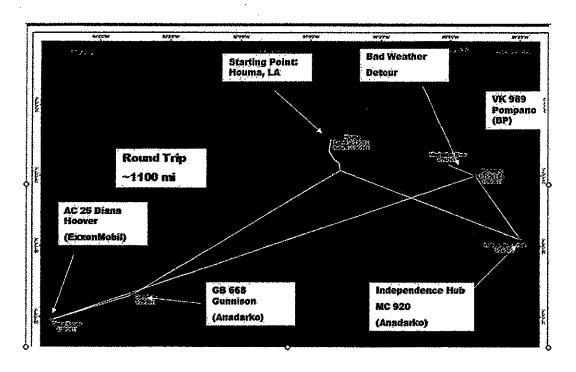


Figure 1. Map of the Gulf of Mexico showing the track of the first sampling cruise for the entrainment monitoring study. This particular cruise involved a detour allowing the vessel to stay in sheltered waters during a short period of bad weather.

Table 1. Entrainment Monitoring Study Sampling Activities - Through December 2011

 $\mathcal{E}^{(k)}:=\{i,j\}^{k}=\{i\}$

		Sampling Site - Block Number											
		GB668			AC25			MC290			VK989		
Cruise	Date	Dawn	Mid- Day	Dusk	Dawn	Mid- Day	Dusk	Dawn	Mid- Day	Dusk	Dawn	Mid- Day	Dusk
1	23-30 Jan 2011	1.	1	1	1	1	1.	1	1	1	1	1	1
2	Canceled - weather					<u>:</u>				_	_		_
3	19-26 Feb 2011	2	2	2				2	2	2	2	2	2
4	Canceled - weather												
5	16-26 Mar 2011	2	1		3	3	1	2	2	2			2
6	Canceled - weather		-		1							-	
7	17 - 20 April 2011	_						2	2	2	3	3	2
8	01 - 08 May 2011	3	2	3	3	3	3	_			2		_
9	17 - 20 May 2011		_			_		2	2	2	1	3	
10	26 - 29 May 2011		_	_				1	1	1	1	1	3
11	9-18 Jun 2011	3	5	5	4	4	3	1	1	1	1		
12	30 June - 7 July 7 2011	1	1	1	1	1	3	1	1	1	1	2	2
13	15 - 19 July 2011				1	1	2	_				_	
14	30 July - 6 August 2011	2	2	2	1	1	1	2	2	2	2.	2	2
15	13 - 21 August 2011	1	1	1	1	1	1	1	1	1	_	1	1
16	28 - 31 August 2011							1	1	1	2	1	1
17	14 - 20 September 2011	2	2	2	. 2	2		1	1	1	1	1	1
18	Canceled - weather						-	_		_			_
19	Canceled - weather		_	ļ		-		ı		_	-		
20	12 - 15 October 2011	_	-		-			3	3	3	3	3	3
21	Canceled - weather		_			_				_	-	-	_
22	Canceled - weather				1						_		-
23	30 Nov - 2 Dec 2011		_						_		3	3	3
24	15 - 18 Dec 2011				_			2	2	1	1	1	1
	Total Samples - 2011	17	17	17	17	17	15	22	22	21	24	24	24

^{*} Sampling during Cruise 13 was not completed due to an equipment failure. Other sampling events marked with "-" could not be completed due to adverse weather conditions.

Table 2. Entrainment Monitoring Sampling -2012

		Sampling Site - Block Number											
			GB668	~	AC25			MC290			VK989		
Cruise	Date	Dawn	Mid- Day	Dusk	Dawn	Mid- Day	Dusk	Dawn	Mid- Day	Dusk	Dawn	Mid- Day	Dusk
25	5-9 Jan 2012	3	3	3	3	3	3						
26	18 - 21 Jan 2012	1				-					2	2	2
27	Canceled - weather	_										_	
28	15 Feb - 18 Feb, 2012								3	3	2	2	2
29	28 Feb - 3 March, 2012	2	3	3	_		_	_					
30	15 March – 18 March 2012				1	-		3	3		1	2	2
31	27 March - 1 April 2012	1	_		1	1	_	-					
32	Canceled - weather											-	
33	Canceled - weather								_	-		1	
34	Canceled - weather		-			a-m	_		_	_		_	
35	23 - 26 May 2012	1			-		-	3	3	3	2	2	3
36	6 - 11 Jun 2012	3	3	3		3	3	ı		1-	-		
37	Canceled - weather	_		-		_	_	_			ı		
38	27 Jun - 1 Jul 2012	1		-	2	1	3	-	_	!	_		
	2012 Samples	10	9	9	6	8	9	6	9	6	7	8	9
	Total Samples	27	26	26	23	25	24	28	31	27	31	32	33